

### REMARKS

Prior to entry of this amendment, claims 1-24 are currently pending in the subject application. Claims 12-24 are withdrawn from consideration. Claims 1 and 5 are the only pending independent claims.

Applicants appreciate the Examiner's acceptance of the drawings filed on June 30, 2006.

#### A. Introduction

In the outstanding Office Action Made Final, the Examiner rejected claims 1 and 5-8 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent Publication No. 2002/0072191 to Aoki et al. ("the Aoki et al. reference"); and rejected claims 2-4 and 9-11 under 35 U.S.C. § 103(a) as being unpatentable over the Aoki et al. reference in view of U.S. Patent Publication No. 2001/00544730 to Kim et al. ("the Kim et al. reference").

#### B. Applicants' Response to Comments in October 31, 2006 Advisory Action

The Continuation sheet of the Advisory Action states:

"The applicant's argue the limitation that the first and second metal layers form the bottom electrode, however, this limitation is not disclosed in claims 1 or 5. As the claims read the lower electrode merely includes "a second metal layer completely filling the cylindrical space defined by the first metal layer." ... it is noted that the features upon which applicant relies (i.e., the bottom electrode comprising first and second metal layers)" are not recited in the rejected claim(s)."

Applicants have repeated the arguments presented in the October 17, 2006 in response to the rejection of claims 1 and 5-8 under 35 U.S.C. § 102(b) as being anticipated by the Aoki et al. reference below. Further, applicants note that the arguments provided in the October 17, 2006 are fully consistent with the claim language, as recited in independent claims 1 and 5. More particularly, applicants note that each of

independent claims 1 and 5 specifically recites “wherein the lower electrode includes a first metal layer ...; and a second metal layer ... .”

It is unclear to applicants’ how and/or why the continuation sheet of the Advisory action states that a lower electrode including first and second metal layers is not recited in each of claims 1 and 5. Reconsideration of the claims is respectfully requested.

C. Applicant Initiated Interview Request

In the event that a personal interview has not been conducted prior to the Examiner’s consideration of this reply, Applicants kindly request that the Examiner contact applicants’ undersigned representative to schedule and conduct a personal interview before issuing a subsequent Office action, unless the subsequent Office action is a Notice of Allowance. The Examiner’s cooperation with this Interview Request will be respectfully appreciated.

D. Asserted Anticipation Rejection of Claims 1 and 5-8

In the outstanding Office Action Made Final, the Examiner rejected claims 1 and 5-8 under 35 U.S.C. § 102(b) as being anticipated by the Aoki et al. reference. The rejection is respectfully traversed for at least the following reasons.

Applicants respectfully submit that the Aoki et al. reference fails to disclose or suggest the combination of features recited in independent claims 1 and 5 including, *inter alia*:

a lower electrode;  
a dielectric layer formed on the lower electrode; and  
an upper electrode formed on the dielectric layer,  
wherein **the lower electrode includes:**  
**a first metal layer having a cylindrical shape and defining a**  
**cylindrical space; and**  
**a second metal layer completely filling the cylindrical space**  
**defined by the first metal layer.**

Page 3 of the Office action identifies the capacitor insulating film 7 of the Aoki et al. reference as the “dielectric layer” feature of claims 1 and 5, and the upper electrode 8 of the Aoki

et al. reference as both the “upper electrode formed on the dielectric layer” feature and the “second metal layer completely filling the cylindrical space defined by the first metal layer” feature of applicants’ independent claims 1 and 5. Applicants respectfully disagree.

Applicants claims 1 and 5 recite a dielectric layer formed on the lower electrode, including a second metal layer completely filling the cylindrical space defined by the first metal layer. The upper electrode 8 of the Aoki et al. reference cannot correspond to both the upper electrode feature and the second metal layer of the lower electrode features of claims 1 and 5. The capacitor insulating film 7 and the upper electrode 8 of the Aoki reference do not correspond to the “dielectric layer” and the “second metal layer of the lower electrode” of applicants’ claims 1 and 5, respectively, at least because the capacitor insulating film 7 is not formed on the upper electrode 8 of the Aoki et al. reference.

For at least these reasons, applicants submit that the Aoki et al. reference does not disclose or suggest the combination of features recited in independent claims 1 and 5, as well as all the features recited in claims 6-8, which directly or indirectly depend from claim 5. It is respectfully requested that the rejection be withdrawn.

E. Asserted Obviousness Rejection of Claims 2-4 and 9-11

In the outstanding Office Action Made Final, the Examiner rejected claims 2-4 and 9-11 under 35 U.S.C. § 103(a) as being unpatentable over the Aoki et al. reference in view of the Kim et al. reference. The rejection is respectfully traversed for at least the following reasons.

As discussed above with regard to independent claims 1 and 5, from which claims 2-4 and 9-11 respectively depend, the Aoki et al. reference fails to disclose or suggest all the features of claims 1 and 5. Applicants submit that the Kim et al. reference fails to overcome the

deficiencies of the Aoki et al. reference, as applied to claims 1 and 5. It is respectfully requested that the rejection be withdrawn.

F. Rejoinder

Upon allowance of independent device claims 1 and/or 5, applicants request rejoinder of non-elected method claims 12-24, including independent method claims 12 and 18, which recite formation of the structural features of independent device claims 1 and/or 5.

G. Conclusion

If the Examiner believes that additional discussions or information might advance the prosecution of the instant application, the Examiner is invited to contact the undersigned at the telephone number listed below to expedite resolution of any outstanding issues.

In view of the foregoing amendments and remarks, reconsideration of this application is earnestly solicited, and an early and favorable further action upon all the claims is hereby requested.

Respectfully submitted,

LEE & MORSE, P.C.

Date: November 20, 2006

  
Eugene M. Lee, Reg. No. 32,039

Attachment:  
RCE Transmittal

**LEE & MORSE, P.C.**  
3141 FAIRVIEW PARK DRIVE  
SUITE 500  
FALLS CHURCH, VA 22042  
703.207.0008 TEL  
703.207.0003 FAX

PETITION and  
DEPOSIT ACCOUNT CHARGE AUTHORIZATION

This document and any concurrently filed papers are believed to be timely. Should any extension of the term be required, applicant hereby petitions the Director for such extension and requests that any applicable petition fee be charged to Deposit Account No. 50-1645.

If fee payment is enclosed, this amount is believed to be correct. However, the Director is hereby authorized to charge any deficiency or credit any overpayment to Deposit Account No. 50-1645.

Any additional fee(s) necessary to effect the proper and timely filing of the accompanying-papers may also be charged to Deposit Account No. 50-1645.